

CLAIMS

We claim:

1. A method of allocating processing capacity of processors in a radio  
5 network controller, the method comprising the steps of:
  - (a) monitoring for a message of a connection between a user element and a network; and
  - (b) allocating:
    - (b1) if the message is a call set-up message, one of the processors to the  
10 connection in accordance with a load-balancing algorithm, and
    - (b2) if the message is an allocation message, a set of spreading codes to the connection with the same spreading factor.
2. The invention of claim 1, wherein step (b1) further comprises the step of providing, by the one of the processors, a call-processing application to the connection.
- 15 3. The invention of claim 1, wherein step (b1) further comprises the step of measuring a utilization of each of the processors.
4. The invention of claim 3, wherein step (b1) allocates the one of the processors based on either a call-context amount per CPU load-balancing algorithm or a CPU processor utilization load-balancing algorithm.
- 20 5. The invention of claim 1, wherein step (b2) further comprises determining the set of spreading codes with the same spreading factor.
6. The invention of claim 5, wherein, for step (b2), the set of spreading codes depends on the number of legs for soft-handover/soft-handoff of the connection.
7. The invention of claim 1, wherein, for step (a), the message of the  
25 connection is of a network operating in accordance with at least one of a General Packet Radio Service (GPRS) standard, Universal Mobile Telecommunications Systems (UMTS) network standard, and a Code Division Multiple Access (CDMA) 2000 standard.
8. The invention of claim 1, wherein the method is implemented in a processor of a radio network controller.

9. A network comprising a radio network controller (RNC), the RNC comprising:

means for monitoring for a message of a connection between a user element and a network;

5 means for allocating:

(b1) if the message is a call set-up message, one of the processors to the connection in accordance with a load balancing algorithm, and

(b2) if the message is an allocation message, a set of spreading codes to the connection with the same spreading factor.

10 10. A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to implement a method for allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

15 (a) monitoring for a message of a connection between a user element and a network; and

(b) allocating:

(b1) if the message is a call set-up message, one of the processors to the connection in accordance with a load-balancing algorithm, and

20 (b2) if the message is an allocation message, a set of spreading codes to the connection with the same spreading factor.